Global weak solutions to the heat flow for prescribed mean curvature surface

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In the talk we present results concerning the existence of global weak solutions to some geometric motivated flows, such as the heat flow for prescribed mean curvature disk-type surfaces or the m-harmonic map heat flow for maps from a compact m-dimensional Riemannian manifold Ω with non-empty boundary $\partial\Omega$ into a compact Riemannian manifold N without boundary. We consider either Cauchy-Dirichlet data or a Plateau type boundary condition.

This is joint work with Verena Bögelein (Erlangen) and Christoph Scheven (Duisburg).